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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,092	07/20/2001	Gregory Bret Turetzky	SIRF.107USU1	2442

7590 10/06/2005  
THE ECLIPSE GROUP  
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EXAMINER

CONTEE, JOY KIMBERLY

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/910,092

Applicant(s)

TURETZKY

Examiner

Joy K Contee

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/1/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 8/1/05 has been entered.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 8/1/05 filed with the RCE filed on 8/1/05. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1,2,4-15 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Washizu et al. (Washizu), U.S. Patent No. 5,402,441.

Regarding claims 1-20, Washizu invention is directed to a GPS signal receiver suitable for use in regions, which suffer multipath interference. As shown in FIG. 3, in column 4, lines 25-65, a GPS signal receiver according to the present invention, including an RF amplifier 2 for amplifying the received GPS signal, and a frequency converter 3 for converting the received GPS signal into an intermediate-frequency signal for easy subsequent signal processing. The GPS signal as converted into the intermediate-frequency signal is supplied to a PN code correlator 5 which is supplied with a PN code generated by a PN code generator 4, and correlated to be code-stripped by the PN code correlator 5. An output signal from the PN code correlator 5 is supplied selectively to a signal search unit 7, a signal-determining unit 8, and a signal-tracking unit 9 through a switch 6.

Washizu et al. does not expressly disclose correlating an incoming CDMA signal, located within a scanned signal window, with a locally generated signal on a first data path. Nevertheless, as recited above, the GPS signal as converted into the intermediate-frequency signal is correlated to be code-stripped by the PN code correlator 5 and an output signal from the PN code correlator 5 is supplied selectively to a signal search unit 7, a signal-determining unit 8, and a signal-tracking unit 9 through a switch 6. In light of the foregoing teachings, one of an

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average skill in the art would have recognized that the output signal from PN code correlator 5 is supplied to different paths. Motivation is that depending on the control signal, switch 6 is selectively switched to either one of a signal search unit 7, a signal-determining unit 8, and a signal-tracking unit 9. The correlation process is performed within a scanned widow. In this case, the signal search unit 7 corresponds to the claimed first data path.

In column 4, lines 50-65, the signal search unit 7 searches for a correlated output signal that is supplied from the PN code correlator 5 through the switch 6, and supplies its output signal to the control circuit 1 1 when the correlated output signal exceeds a predetermined value. The signal determining unit 8, corresponding to the claimed second path, has a RAM 81 having first and second storage areas for storing correlated output signal levels that have been supplied at different times through the switch 6, and a comparator 82 for comparing the correlated output signal levels stored in the first and second storage areas of the RAM 81. The signal determining unit 8 performs the verification of the output signal from the signal search unit 7 to determine if the detected output signal is produced by the direct wave, corresponding to the claimed auto-correlated signal, or one of multipath waves, corresponding to the claimed cross-correlated signal; see column 4, lines 60-68, column 5, lines 30-55, see also figure 3.

In column 6 line 60 via column 7 line 10, When a correlated output signal peak produced by the direct wave is determined by the signal determining unit 8,

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the switch 6 is shifted over to the signal tracking unit 9 by an output signal from the control circuit 11. The correlated output signal from the PN code correlator 5 is monitored by the signal-tracking unit 9. The phase of the PN code produced by the PN code generator 4 is controlled by the PN code phase control unit 10 such that the correlated output signal will remain at the peak value in the phase of the PN code at the time the correlated output signal is produced by the direct wave. When the correlated output signal peak is no longer tracked, the switch 6 is shifted over to the signal search unit 7 again by the control circuit 11, and the above process is repeated again. The aforementioned last step corresponds to the claimed step of "continuing to search the scanned signal window ..." (also see Figure 4).

5. Claims 3 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Washizu as applied to claim 1 above, and further in view of Lau et al. U.S. Patent 5,504,684.

Regarding claims 3 and 16, Washizu does not teach the components GPS receiver integrated on the same integrated circuit as set forth in the claim.

Lau et al. invention is directed to combining, on a single integrated circuit, an eight channel GPS receiver, a 68330-type microprocessor, a 68681-type DUART serial communications controller, an analog-to-digital converter, a real-time clock, a random access memory and a boot read-only memory. In light of Lau et al. teachings, it would have been obvious for one of ordinary skill in the art at the time of the invention that

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Washizu et al. GPS receiver can be modified to implement on a single integrated circuit. The motivation is taught in Lau et al. invention that providing an integrated circuit reduces the size, cost and complexity of a GPS receiver and thus improve reliability and performance; see column 1, lines 30-35.


**Conclusion**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joy K Contee whose telephone number is 571.272.7906. The examiner can normally be reached on Monday through Friday, 5:30 a.m. to 2:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571.272.7905. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JC

  
**JOY K. CONTEE**  
**SENIOR EXAMINER**